

## AMENDMENTS TO THE SPECIFICATION

### In the Specification:

Please replace the paragraph on page 48, lines 10-26, with the following paragraph:

For use as motilides, the compounds of the invention can be used directly without further chemical modification. Erythromycin and certain erythromycin analogs are potent agonists of the motilin receptor that can be used clinically as prokinetic agents to induce phase III of migrating motor complexes, to increase esophageal peristalsis and LES pressure in patients with GERD, to accelerate gastric emptying in patients with gastric paresis, and to stimulate gall bladder contractions in patients after gallstone removal and in diabetics with autonomic neuropathy. (See ~~Peeters, 1999, Motilide Web Site, <http://www.med.kuleuven.ac.be/med/gih/motilid.htm>~~, and Omura *et al.*, 1987, Macrolides with gastrointestinal motor stimulating activity, *J. Med. Chem.* 30:1941-3). The corresponding compounds of the invention being modified by *Saccharopolyspora erythraea* also have motilide activity, particularly after conversion, which can also occur *in vivo*, to the C-6 to C-9 hemiketal by treatment with mild acid. Compounds lacking the C-12 hydroxyl are especially preferred for use as motilin agonists. These compounds can also be further chemically modified, however, to provide other compounds of the invention with potent motilide activity.

Please replace the paragraph on page 91, lines 19-20, with the following paragraph:

15. Ziermann, R., and Betlach, M., A Two-vector System for the Production of Recombinat Recombinant Polyketides in Streptomyces. ~~J. Bacteriol.~~, 1998 J. Industrial Microbiol. Biotech. 2000: 24:46-50.

Please replace the paragraph on page 15, lines 3-19, with the following paragraph:

A suitable methylmalonyl CoA mutase (5.4.99.2) gene can be isolated from *Streptomyces cinnamonensis*. See Birch *et al.*, 1993, *J. Bacteriol.* 175: 3511-3519, entitled "Cloning, sequencing, and expression of the gene encoding methylmalonyl-coenzyme A mutase from *Streptomyces cinnamonensis*." This enzyme is a two subunit enzyme; the A and B subunit coding sequences are available under Genbank accession L10064. The coding sequences for the mutA and mutB genes from *S. cinnamonensis* are given below as SEQ ID No. 3 and 4, respectively. Another suitable methylmalonyl CoA mutase gene can be isolated from *Propionibacterium shermanii*. See Marsh *et al.*, 1989, *Biochem. J.* 260: 345-352, entitled "Cloning and structural characterization of the genes coding for adenosylcobalamin-dependent methylmalonyl CoA mutase from *Propionibacterium shermanii*." The coding sequences for the mutA and mutB genes from *P. shermanii* are given below as SEQ ID No. 1 and 2, respectively. Alternatively, a suitable methylmalonyl CoA mutase gene can be isolated from *Porphyromonas gingivalis*. See Jackson *et al.*, 1995, *Gene* 167: 127-132, entitled "Cloning, expression and sequence analysis of the genes encoding the heterodimeric methylmalonyl CoA mutase of *Porphyromonas gingivalis* W50." Alternatively, suitable methylmalonyl CoA mutase genes can be isolated from any of the sources noted in the following table of a partial BLAST search report or from additional BLAST analyses.

Please replace the paragraph beginning on page 18, line 12, and ending on page 19, line 2, with the following paragraph:

Biochemical characterization of a methylmalonyl CoA epimerase enzyme purified from *Propionibacterium shermanii* has been completed. See Leadlay, 1981, *Biochem. J.* 197: 413-419, entitled "Purification and characterization of methylmalonyl CoA epimerase from *Propionibacterium shermanii*," Leadlay & Fuller, 1983, *Biochem. J.* 213: 635-642, entitled "Proton transfer in methylmalonyl

CoA epimerase from *Propionibacterium shermanii*: Studies with specifically tritiated (2R)-methylmalonyl CoA as substrate; Fuller & Leadlay, 1983, *Biochem. J.* 213: 643-650, entitled "Proton transfer in methylmalonyl CoA epimerase from *Propionibacterium shermanii*: The reaction of (2R)-methylmalonyl CoA in tritiated water." The DNA sequence of the gene coding for this enzyme from *Propionibacterium shermanii* is provided by the present invention as SEQ ID No: 5 in isolated and recombinant form and is incorporated into expression vectors and host cells of the invention; the protein sequence of this enzyme from *Propionibacterium shermanii* is provided as SEQ ID NO: 6. Suitable methylmalonyl CoA epimerase genes can be isolated from a BLAST search using the *P. shermanii* sequence provided in Example 1, below. Preferred epimerases in addition to the *P. shermanii* epimerase include gene identified by homology with the *P. shermanii* sequence located on cosmid 8F4 from the *S. coelicolor* genome sequencing project and the *B. subtilis* epimerase described by Haller *et al.*, 2000, *Biochemistry* 39 (16): 4622-4629, incorporated herein by reference.

Please delete the sequence listing on page 67, lines 16-41.

Please enter the attached printed Sequence Listing as new pages 1-4.